REMARKS/ARGUMENTS

In the Office Action mailed June 12, 2008, claims 1-4 and 7-14 were rejected. In response, Applicants hereby request reconsideration of the application in view of the amendments and the below-provided remarks. No claims are added or canceled. For reference, claim 1 is amended to fix a minor grammatical error.

Claim Rejections under 35 U.S.C. 102 and 103

Claims 1-4, 7, 8, 11, and 12-14 were rejected under 35 U.S.C. 102(b) as being anticipated by Schultz et al. (U.S. Pat. No. 6,445,245, hereinafter Schultz). Additionally, claims 9 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz in view of Ajit (U.S. Pat. Pub. No. 2002/0113628, hereinafter Ajit). However, Applicants respectfully submit that these claims are patentable over Schultz and Ajit for the reasons provided below.

Independent Claim 1

Claim 1 recites "adjusting means for switching off a buffer connected to the configurable circuit according to the determination of the applied load" (emphasis added).

In contrast, Schultz does not disclose switching off a buffer. As explained in applicants' previous response, Schultz generally describes adjusting a digitally controlled impedance to enable impedance matching with respect to a circuit connected to a pad driven by an output driver. Schultz, abstract. More specifically, Schultz describes enabling certain transistors from a set of transistors that are initially all turned off. Schultz, col. 7, line 56, to col. 8, line 24. Schultz further describes dynamically enabling transistors designated as "coarse" transistors and "fine" transistors in order to make a "coarse" tuning of the impedance matching and a "fine" tuning of the impedance matching. Schultz, col. 8, lines 37-65. However, the Office Action states that "the P and N transistor pairs in series are buffers (P1 & N1)." Office Action, page 2. The Office Action further asserts that, because the p-channel and n-channel transistors are controlled independently, the p-channel and n-channel transistors can be turned off together in

matching pairs at the same time. Office Action, pages 2 and 3. This contention is respectfully traversed.

P-channel and N-channel Transistor Pairs in Series

The Office Action contends that the use of a p-channel and n-channel transistor pair in series constitutes a buffer. However, the Office Action provides no basis in the form of a reference, or other evidence, to support this assertion. In fact, there appears to be no reference to a p-channel and n-channel transistor pair in series constituting a buffer. Therefore, with regard to the p-channel and n-channel transistors of Schultz, Schultz does not disclose switching off a buffer according to the determination of the applied load.

P-channel and N-channel Transistors Pairs Switched Off Simultaneously

However, even if a p-channel and n-channel transistor pair in series were understood to constitute a buffer, Schultz nevertheless is silent in regard to switching off a specific p-channel in conjunction with a specific n-channel transistor pair such as P3/N3 or P5/N5 simultaneously. In fact, Schultz, as the Office Action asserts, controls the p-channel and n-channel transistors independently. Schultz, col. 4, lines 40-65. In other words, Schultz does not disclose deactivating any specific set of one or more p-channel transistors in conjunction with a specific set of one or more n-channel transistors such that the p-channel and n-channel transistors are deactivated as corresponding pairs. Specifically, Schultz explains that the p-channel and n-channel transistors each are independently activated/deactivated in conjunction with separate reference voltages (V_{PREF} and V_{NREF}), separate output driver circuits 501 and 511, and separate control signals. Schultz, col. 11, lines 8-12. Moreover, Schultz explains that the p-channel and n-channel transistors are switched off during different time periods. Schultz, col. 13, lines 30-67. Because Schultz discloses that the p-channel transistors are controlled during a first time period and the n-channel transistors are controlled during a second time period, the p-channel and n-channel transistors are not deactivated simultaneously, much less deactivated as matching pairs simultaneously. Therefore, because the p-channel and n-channel transistors of Schultz are switched off at separate and distinct time periods and Schultz is silent with regard to deactivating a specific pair of p-channel and n-channel transistors in unison, Schultz does not disclose switching off a buffer according to the determination of the applied load.

For the reasons presented above, Schultz does not disclose all of the limitations of the claim because Schultz does not disclose switching off a buffer according to the determination of the applied load, as recited in the claim. Accordingly, Applicants respectfully assert claim 1 is patentable over Schultz because Schultz does not disclose all of the limitations of the claim.

Independent Claim 12

Applicants respectfully assert independent claim 12 is patentable over Schultz at least for similar reasons to those stated above in regard to the rejection of independent claim 1. In particular, claim 12 recites "switching off a buffer connected to the configurable circuit according to the determination of the applied load."

Here, although the language of claim 12 differs from the language of claim 1 and the scope of claim 12 should be interpreted independently of claim 1, Applicants respectfully assert that the remarks provided above in regard to the rejection of claim 1 also apply to the rejection of claim 12. Accordingly, Applicants respectfully assert claim 12 is patentable over Schultz because Schultz does not disclose switching off a buffer connected to the configurable circuit according to the determination of the applied load.

Dependent Claims

Claims 2-24 and 26-29 depend from and incorporate all of the limitations of the corresponding independent claims 1 and 12. Applicants respectfully assert claims 2-24 and 26-29 are allowable based on allowable base claims. Additionally, each of claims 2-24 and 26-29 may be allowable for further reasons, as described below.

In regard to claims 7 and 13, Applicants respectfully submit that claims 7 and 13 are also patentable over Schultz because Schultz does not disclose all of the limitations of the claims. Claim 7 recites means for "generating at least one control signal for simultaneously switching off a section of buffers" (emphasis added). Claim 13 recites similar limitations. In contrast, Schultz merely discloses providing control signals for controlling transmission gates and transistors to "provide DCI output driver circuits with different impedances." Schultz, col. 14, line 32, to col. 15, line 21. However, Schultz does not disclose that the control signals might control a buffer. More specifically,

Schultz does not disclose that the control signals might control a section of buffers. Furthermore, it appears that Schultz is silent with regard to generating at least one control signal for simultaneously switching off a section of buffers.

The Office Action contends that the use of a p-channel and n-channel transistor pair in series constitutes a buffer. However, as explained above, the Office Action provides no basis in the form of a reference, or otherwise, to establish such an assertion. Accordingly, Applicants respectfully assert that claims 7 and 13 are not anticipated by Schultz because Schultz does not disclose "generating at least one control signal for simultaneously switching off a section of buffers," as recited in claims 7 and 13.

In regard to claims 8 and 14, Applicants respectfully submit that claims 8 and 14 are not anticipated by Schultz because Schultz does not disclose all of the limitations of the claims. Claims 8 and 14 depend from claims 7 and 13 respectively and, hence, include the same limitations through dependency. Additionally, claim 8 recites means for "deriving said control signal from a most significant bit signal of a selection signal obtained from said determination means" (emphasis added). Claim 14 recites similar limitations. In contrast, Schultz merely discloses providing control signals for controlling transmission gates and transistors to "provide DCI output driver circuits with different impedances," as cited above. However, Schultz does not disclose that the control signal to turn off the buffer might be derived from a most significant bit signal. In fact, Schultz appears to be silent with regard to deriving a control signal from a most significant bit signal to turn off a buffer.

Additionally, the Office Action asserts that Schultz discloses that a control signal update is supplied from the bank DCI 960 which is derived from a most significant bit of comparator 921. However, similar to the argument of the limitations of claims 1 and 12, the Office Action provides no basis in the form of a reference, or otherwise, to establish such an assertion. In fact, Applicants find no mention of any such language in the disclosure of Schultz. Accordingly, Applicants respectfully assert that claims 8 and 14 are not anticipated by Schultz because Schultz does not disclose "deriving said control signal from a most significant bit signal of a selection signal," as recited in claims 8 and 14.

CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,

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Date: September 25, 2008

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